

Atkinson Center for a Sustainable Future

Title: *“Sustainable Agriculture as a part of a Draper-Cornell Partnership”*

Hosts: **Dr. Natalie Mahowald**, Professor, Atmospheric Sciences, Department of Earth and Atmospheric Sciences, Faculty Director for the Environment, Atkinson Center for a Sustainable Future
Dr. Alex Travis, VMD, Ph.D., Baker Institute for Animal Health Department of Biomedical Sciences Associate Professor of Reproductive Biology, Associate Dean for International Programs and Public Health

Date: Friday November 17, 2017 12:00 – 1:00 pm 300 Rice Hall

Last May, Sheila Hemami, a former professor of Electrical and Computer Engineering here at Cornell and now Director of Strategic Technical Opportunities at Draper Engineering, presented some of the innovations in technology Draper has developed. Although much of their work has historically been dedicated to space exploration, military systems, etc., they would now like to apply those technologies and their expertise to important issues in sustainable agriculture, public health, and wildlife conservation. They have invited Rebecca Nelson and Lorin Warnick to Draper to make presentations on the major global challenges and unmet needs in sustainable agriculture, including both the plant/soil and livestock ends. Draper can bring to the table amazing nano and satellite-based technologies, including the use of remote sensing via satellites, and remote collection of samples via drones.

Sheila is also very interested in holistic, One Health approaches that might integrate different kinds of data ranging from satellite images to human hospital records, veterinary records and diagnostics, to cell phone data and social media, all bridging ministries of agriculture and health. This would be done both to respond to outbreaks as well as to proactively manage/prevent them.

Our goal in this topical lunch will be to develop a list of the global challenges, which could be used by Rebecca and Lorin to inform Draper, and potentially form the basis for future joint activities. Although they have great engineers and a growing commitment to life sciences, Sheila readily admits that they don't have in-house expertise in this area, so collaboration with Cornell make sense. In addition, it would be doubly productive if a white paper of the key global needs (and intersections with Cornell's strengths in sustainable agriculture) could be generated. In addition to use at the follow-up meeting in December in Boston, this same white paper could be used to broaden and deepen existing research collaborations at Cornell in this area. We plan to collaborate with and expand on the recent Digital Agriculture workshop.